



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
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AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

Waste Management Division
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October 22, 1997

NEIL MACKENZIE
MACKENZIE CONSTRUCTION COMPANY
PO Box 444
CHESTER VERMONT 05143

RE: Site Management Activity Completed, MacKenzie Construction Property
Chester, Vermont (Site #95-1937)

Dear Mr. MacKenzie:

The Vermont Department of Environmental Conservation, Sites Management Section (SMS) has reviewed both the Geomapping Associates, Ltd. October 17, 1997 letter documenting the onsite thin spreading of the petroleum contaminated soils, and the Stone Environmental, Inc. "Monitoring Report," dated September 12, 1997, in which a petition was made for giving the site a SMAC (Site Management Activity Completed) designation. Subsurface investigative work was conducted at this site following the discovery of a petroleum release during the removal of a 1,000 gallon gasoline underground storage tank (UST) on December 8, 1995. All petroleum contaminated soil was removed from the excavation until the water table was reached at approximately 17 feet below ground surface; evidence of soil contamination was found at the water table. Approximately 50 cubic yards of petroleum contaminated soil was removed, and subsequently treated onsite using the polyencapsulation treatment option.

On December 8, 1995, three test pits were excavated to the water table to define the degree and extent of soil and groundwater contamination. Groundwater samples were collected from each test pit, and the tank excavation, and submitted for EPA Method 8260 analysis. Soil samples were collected and field screened with a photoionization detector. No evidence of either soil or groundwater contamination was found beyond the former UST pit area. The December 1995 groundwater sampling results for the tank excavation indicated contaminants in excess of the Vermont Groundwater Enforcement Standards (VGES). In April 1996, a groundwater monitoring well was installed in the former tank pit to track groundwater contaminant levels. Results from the April 1996 sampling round indicated that contaminant levels of concern (e.g., benzene and xylenes) had fallen sharply since December. In May 1997, the well was re-sampled, and contaminant levels were all below the VGES.

Based on the current conditions at this site, the SMS has determined that this site is now eligible for a SMAC designation. This means that the SMS has determined the following:

- the 1,000 gallon gasoline UST has been removed from the ground, and is no longer a continuing source of petroleum contamination at this site;

(over)

- 50 cubic yards of petroleum contaminated soils were excavated and successfully treated onsite using the polyencapsulation treatment option;
- groundwater sampling results indicated that there is no remaining groundwater contamination in excess of the VGES at this site; and
- any residual contamination does not pose an unacceptable risk to human health or the environment.

Based on the above, it appears that petroleum contamination was confined to the immediate vicinity of the former UST location, has since been naturally attenuated, and does not pose an unreasonable risk to human health and safety or the environment. Therefore, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release MacKenzie Construction of any past or future liability associated with any petroleum contamination remaining in the ground from the removed UST. It does, however, mean that the SMS is not requesting any additional work at this time. If the monitoring well is no longer used or maintained, then it must be properly closed to eliminate a possible conduit for contaminant migration into the subsurface. This closure typically involves filling the wells with a grout material to prevent fluid migration in the borehole. Specific requirements for well closure are outlined in Section 12.3.5 in Appendix A of the Vermont Water Supply Rule-Chapter 21. Also, the road box or stand-up well guard for a monitoring well (if applicable) must be removed before well closure is considered complete. If you have any questions or comments, please feel free to contact either me or Matt Moran at (802)-241-3888.

Sincerely,



George Desch, Chief
Sites Management Section

cc: Chester Selectboard
Chester Health Officer
DEC Regional Office
Jim Purdy, Geomapping Associates, Ltd.
Jeff Kelley, Stone Environmental, Inc.